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EXAMINER
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AMINI, JAVID A

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 10/29/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/778,515

Applicant(s)

EDGE ET AL.

Examiner

Javid A Amini

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-37;39-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37;39-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2672

### ***Claim Objections***

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 38 on page 8, been renumbered claim 36; claim 39 on page 9, been renumbered claim 37; claim 39 on page 9 that is cancelled, been renumbered claim 38; claims 40 and 41 on page 9 been renumbered claims 39 and 40.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 6, 7, 8, 10, 12, 13, 14, 15, 16, 19, 21, 24, 25, 30, 31, 32, 34, 36, 37, 40 and 39 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 5, 6, 7, 9, 11, 12, 13, 16, 17, 18, 22, 27, 29, 31, 32, 33, 35,

Art Unit: 2672

37, 38, 41 and 42 of copending Application No. 09/778,704. Although the conflicting claims are not identical, they are not patentably distinct from each other because, see below:

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

**The comparison of claims 1, 15, and 25 (the limitations shown by A, B, C, ..... ) over claims 1,16 and 27 (the limitations shown by A', B', C', ..... ) of copending Application No. 09/778,704.**

- **Pending independent claim 1, of 09/778,515:** A method comprising: (A) generating gray elements and a dithered gray background for display on a display device, (B) the dithered gray background representing a gray level of approximately 25 to 40%; (C) estimating a gamma for the display device based on user selection of one of the gray elements that appears to most closely blend with the dithered gray background.
- **Pending independent claim 1, of 09/778,704:** A method comprising: (A') generating a first gray element based on an estimated gamma for a green channel of a display device; (B') generating a set of red-blue shifted gray elements that represent shifts in the red channel, blue channel, or a combination of the red and blue channels away from the first gray element; (C') and estimating a gray balance of the display device based on user selection of one of the gray elements that appears to most closely blend with a gray background.

**The comparison:** The limitations A and C teach by A' and C'. But the limitation of B states 25-40% gray level, however, B' limitation states red-blue shift gray level as a way to adjust the second level. By adjusting the red-blue shift gray level, one may obtain gray level of 25-40% of B limitation.

- **Pending independent claim 15, of 09/778,515:** A system comprising: (A) a web server residing on a computer network, the web server transmitting web pages to remote clients residing on the computer network; (B) a color image server residing on the computer network, the color image server transmitting color images referenced by the web pages to the clients for display on display devices associated with the clients; (C) a color profile server residing on the computer network, the color profile server guiding the clients through a color profiling process to obtain information characterizing the color responses of the display devices associated with the clients, wherein the information includes a gamma for the display device, the gamma being determined by selecting one of a plurality of gray elements displayed by the display device that appears to most closely blend with a dithered gray background that represents a gray level of approximately 25 to 40%; (D) and one or more color correction modules that modify the color images

transmitted by the color image server based on the information to improve the accuracy of the color images when displayed on the respective display device.

- **Pending independent claim 16, of 09/778,704:** A system comprising: (A') a web server residing on a computer network, the web server transmitting web pages to remote clients residing on the computer network; (B') a color image server residing on the computer network, the color image server transmitting color images referenced by the web pages to the clients for display on display devices associated with the clients; (C') a color profile server residing on the computer network, the color profile server guiding the clients through a color profiling process to obtain information characterizing the color responses of the display devices associated with the clients, wherein the information includes a gray balance for each of the display devices, and the color profiling process includes: displaying a first gray element based on an estimated gamma for the green channel of the display device, displaying a set of red-blue shifted gray elements that represent shifts in the red channel, blue channel, or a combination of the red and blue channels away from the first gray value, selecting one of the gray values that appears to most closely blend with a gray background, and estimating the gray balance of the display device based on the selected gray element; (D') and one or more color correction modules that modify the color images transmitted by the color image server based on the information to improve the accuracy of the color images when displayed on the respective display device.

**The comparison:** The limitations of A, B, and D teach by the A', B', and D'. But the limitation of C states 25-40% gray level, however, C' limitation states red-blue shift gray level as a way to adjust the second level. By adjusting the red-blue shift gray level, one can obtain gray level of 25-40% of C limitation.

- **Pending independent claim 25, of 09/778,515:** A computer-readable medium containing instructions that cause a programmable processor to: (A) display a plurality of gray elements on a display device against a dithered gray background representing a gray level of approximately 25 to 40%; (B) select one the gray elements that appears to most closely blend with a dithered gray background; (C) and estimate a gamma for the display device based on the selected gray element.
- **Pending independent claim 27, of 09/778,704:** A computer readable medium containing instructions that cause a programmable processor to: (A') generate a first gray element based on an estimated gamma for a green channel of a display device; (B') generate a set of red-blue shifted gray elements that represent shifts in the red channel, blue channel, or a combination of the red and blue channels away from the first gray element; (C') and generate a gray balance of the display device based on user selection of one of the gray elements that appears to most closely blend with a gray background.

**The comparison:** The limitations B and C teach by the A' and C'. But the limitation of A states 25-40% gray level, however, B' limitation states red-blue shift gray level as a way to adjust the second level. By adjusting the red-blue shift gray level, one can obtain gray level of 25-40% of A limitation.

Art Unit: 2672

- **Pending dependent claims 6, 7, 8, 10, 12, 13, 14, 16, 19, 21, 24, 30, 31, 32, 34, 36, 37, 40 and 39 of 09/778,515 have the same claim invention of claims 5, 6, 7, 9, 11, 12, 13, 17, 18, 22, 29, 31, 32, 33, 35, 37, 38, 41 and 42 of 09/778,704 respectively.**

*Response to Arguments*

Applicant's arguments with respect to claims 1-40 have been considered but are moot in view of the new ground(s) of rejection.

Examiner responded to all of the arguments that applicant made, also Examiner added new reference to illustrate clearly all the elements in the claims.

- Examiner's interpretation for "Dithering": Dithering relies on treating areas of an image as groups of dots (pixels) that are colored in different patterns (intensity).
- Examiner's interpretation for "Gray scale": A sequence of shade ranging from black through white.
- The 35 USC 112 1<sup>st</sup> and second paragraphs have been withdrawn.
- Applicant on page 12, lines 18-20, regarding the 35 USC 102 (e) rejection argues that Yamamoto fails to teach generating gray and a dithered gray background for display. Yamamoto's invention (see abstract) is all about generating a background color and adjusting a color tone of an image on the display, according to the definitions of dithering and gray scale. Applicant on page 12, lines 21-23, regarding the 35 USC 102 argues that Yamamoto fails to teach or suggest estimating a gamma for the display device. In contrast Yamamoto discloses in para. 0040 or refer to Fig. 12 step S303.
- Applicant argues on page 13, lines 4+ of remarks that the Examiner did not account for applicant's feature of estimating a gamma for the display based on

Art Unit: 2672

user selection. In contrast Yamamoto in Fig. 5, discloses the step of estimating a gamma based on the user selection. It seems like applicant's arguments are about Yamamoto's inputting R, G, and B values for a background. However applicant fails to distinguish that the conversion of mentioned colors produce black (see Fig. 1 step K) or any different colors. Also Yamamoto on para. 0037, discloses that gamma correction circuit for performing gamma correction to correct any nonlinearity of a display device.

- Applicant on page 13, lines 12-18, of remarks states that Yamamoto fails to teach the use of a dithered background. Instead, Yamamoto describes directly controlling pixel intensity. Let's analyze the phrases that applicant discloses: "dithered background" and "pixel intensity". How does a person skill in the art experience the dithered background? The answer would be by controlling the pixel intensity. Because a "pixel" is short for picture (*pix*) *element*. One spot in a rectilinear grid of thousands of such spots that are individually "painted" (combination of colors) to form a background image on the display device of a computer or printer.
- Applicant on page 13, lines 19-27, of remarks states, that the Examiner does not provide any suggestion of the limitations recited in claim 1. Analyzing the claim1's language: "estimating a gamma for the display device based on user selection of one of the gray elements" (meaning: one of the infinity color elements)" that appears to most closely blend "(meaning: one of the infinity color elements)" with the dithered gray background". Yamamoto in para. 0037 and

Art Unit: 2672

0047 discloses that Reference numeral 1109 denotes a monitor gamma correction circuit for performing gamma correction to correct any nonlinearity of a display device. And also Yamamoto's invention allows the user to independently input the R, G, and B values of the background color to estimate gamma.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 2, 5, 7, 8, 12, 25, 26, 29, 31, 32 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Display gamma estimation applet" by Hans Brettel, copyright 1999, said applet can be located at <http://www.tsi.enst.fr/~brettel/TESTS/Gamma/Gamma.html> (referenced hereinafter as "Brettel") in view of "Why do Images Appear Darker on Some Displays? An Explanation of Monitor Gamma" By Robert W. Berger, copyright 1997 (referenced hereinafter as "Berger").**

1. As to claims 1 and 2, Brettel discloses a process for calibrating/estimating the gamma for a monitor, comprising: generating gray elements (i.e., the center square of gray) and a gray background on a display device, the gray background representing a gray level of approximately 25-40% (See the Figure of the Brettel applet. This applet allows for the adjusting of both the center square and the background. Further, the gray values of these items can be varied between 0-254, which, on a percentage scale is 0-100%. For example, a gray value of 84 for the



Art Unit: 2672

background is equivalent to approximately 33% gray level. The applet works for background levels from approximately 2 to 190 which corresponds to approximately .01% to 75% background gray level range. Thus, the applet includes the claimed range of 25-40%); and estimating a gamma for the display device based on user selection of one of the gray elements that appears to most closely blend with the dithered gray background (the applet estimates a gamma value (See the line "gamma=2.14" directly above the sliders. The values displayed by the applet for the gamma is based upon what value the user selects for the gray element (center square) that most closely matches the background gray level.). As to the limitation of "dithered" gray background level, while the reference does not explicitly state that the background gray level is "dithered", however, the use of dithered background is obvious. See, for example, the Berger article, page 2, section titled "What is the gamma of my display system?". Herein, the article discusses the use of dither gray images in the setting of gamma for a display (which is the same process as in the Brettel applet). Further, the Berger article shows using gray values of 25%, 50%, and 75%. To one of ordinary skill in the art, it would have been obvious to use dither gray values as the background because of the conventionality of doing so (as shown by Berger) and because the two different gray areas (background and center square) need to be generated in different ways for the process to work.

2. With regard to claim 5, Berger mentions that gamma does effect the color components such as red and green on page 2 and discusses that red, green and blue are affected by gamma on page 3.

3. As to claim 7, Brettel on page 1, discloses for estimating the gamma includes: selecting one of a first plurality of gray elements displayed by the display device that appears to most

Art Unit: 2672

closely blend with the dithered gray background; estimating a coarse gamma for the display device based on the selected one of the first plurality of gray elements; selecting one of a second plurality of gray elements displayed by the display device that appears to most closely blend with the dithered gray background, wherein the second plurality of gray elements includes the selected one of the first plurality of gray elements; and estimating a fine gamma for the display device based on the selected one of the second plurality of gray elements, wherein the estimated fine gamma is the estimated gamma.

4. As to claim 8, Berger on page 2, illustrates the first plurality of gray elements represent greater gradations in gray intensity than the second plurality of gray elements.

5. As to claim 12, Brettel on page 1, illustrates for estimating both the blackpoint and the gray balance of the display device; and characterizing the colorimetric response of the display device based on the estimated gamma, blackpoint, and gray balance.

6. Claims 25 and 26.

Brettel discloses a process for calibrating/estimating the gamma for a monitor, comprising: generating gray elements (i.e., the center square of gray) and a gray background on a display device, the gray background representing a gray level of approximately 25-40% (See the Figure of the Brettel applet. This applet allows for the adjusting of both the center square and the background. Further, the gray values of these items can be varied between 0-254, which, on a percentage scale is 0-100%. For example, a gray value of 84 for the background is equivalent to approximately 33% gray level. The applet works for background levels from approximately 2 to 190 which corresponds to approximately .01% to 75% background gray level range. Thus, the applet includes the claimed range of 25-40%); and estimating a gamma for the display device

Art Unit: 2672

based on user selection of one of the gray elements that appears to most closely blend with the dithered gray background (the applet estimates a gamma value (See the line "gamma=2.14" directly above the sliders. The values displayed by the applet for the gamma is based upon what value the user selects for the gray element (center square) that most closely matches the background gray level.) As to the limitation of "dithered" gray background level, while the reference does not explicitly state that the background gray level is "dithered", however, the use of dithered background is obvious. See, for example, the Berger article, page 2, section titled "What is the gamma of my display system?". Herein, the article discusses the use of dither gray images in the setting of gamma for a display (which is the same process as in the Brettel applet). Further, the Berger article shows using gray values of 25%, 50%, and 75%. To one of ordinary skill in the art, it would have been obvious to use dither gray values as the background because of the conventionality of doing so (as shown by Berger) and because the two different gray areas (background and center square) need to be generated in different ways for the process to work.

7. Claim 29.

With regard to claim 29, Berger mentions that gamma does effect the color components such as red and green on page 2 and discusses that red, green and blue are effected by gamma on page 3.

8. Claim 31.

Brettel on page 1, discloses for estimating the gamma includes: selecting one of a first plurality of gray elements displayed by the display device that appears to most closely blend with the dithered gray background; estimating a coarse gamma for the display device based on the selected one of the first plurality of gray elements; selecting one of a second plurality of gray elements displayed by the display device that appears to most closely blend with the dithered

Art Unit: 2672

gray background, wherein the second plurality of gray elements includes the selected one of the first plurality of gray elements; and estimating a fine gamma for the display device based on the selected one of the second plurality of gray elements, wherein the estimated fine gamma is the estimated gamma.

9. Claim 32.

Berger on page 2, illustrates the first plurality of gray elements represent greater gradations in gray intensity that the second plurality of gray elements.

10. Claim 36.

Brettel on page 1 illustrates for estimating both the blackpoint and the gray balance of the display device; and characterizing the colorimetric response of the display device based on the estimated gamma, blackpoint, and gray balance.

**11. Claims 3, 4, 6, 9-11, 13-24, 27, 28, 30, 33-35, 37 and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brettel and Berger, and further in view of Adobe Technical Guides (copyright 2000; hereinafter referenced as "Adobe").**

12. With regard to claim 3, while Brettel only shows gray values without mentioning a green channel as does Berger (though Berger does mention that gamma does effect the color components such as red and green on page 2 and discusses that red, green and blue are effected by gamma on page 3), they do not actually show the claimed limitation of "the gray elements include green elements representing a range of gray levels for the green channel, and the dithered background is a dithered green background". However, Adobe shows in the first 2 figures of step 6 (page 6) that this type of gamma correction can be made using either gray levels (first figure) or using the components (red, green, and blue; second figure). To one of ordinary skill in

Art Unit: 2672

the art, it would have been obvious to use the green channel as the range of gray levels. And also dither gray values because the two different gray areas (background and center square) need to be generated in different ways for the process to work.

13. With regard to claim 4, Berger on page 3, discloses that color can be measured in a device, and a colorimeter is a device that evaluates and identifies colors in terms of a standard set of synthesized colors. To one of ordinary skill in the art it would have been obvious to use the teachings of Adobe in the combination of Brettel and Berger since all three of the references are directed to the same process of setting a gamma level using an operator input and because the ability of setting the gamma using the component (RGB) colors allows for a more accurate and distinct gamma correction since the gamma can be adjusted individually for each component rather than a single global gamma adjustment.

14. With regard to claims 6 and 13-14, Adobe on pages 2-9, teaches Windows NT, 95, 98 and Mac OS which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated gamma to a remote server on the network; The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network.

15. As to claims 9-11, Adobe on page 5, illustrates the gray elements are green elements representing a range of gray levels for the green channel, and the dithered gray background is a dithered green background, the method further comprising: selecting one of the selected green element and a plurality of red-blue shifted elements displayed by the display device that appears to most closely blend with the second dithered green background displayed by the display

Art Unit: 2672

device; and estimating the gray balance of the display device based on the selected one of the selected green element or selected red-blue shifted element.

16. As to claim 15, Brettel and Berger do not explicitly specify a server and a client on a network. However, Adobe on page 2-9 illustrates, teaches Windows NT, 95, 98 and Mac OS which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated gamma to a remote server on the network; The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network. Brettel discloses a process for calibrating/estimating the gamma for a monitor, comprising: generating gray elements (i.e., the center square of gray) and a gray background on a display device, the gray background representing a gray level of approximately 25-40% (See the Figure of the Brettel applet. This applet allows for the adjusting of both the center square and the background. Further, the gray values of these items can be varied between 0-254, which, on a percentage scale is 0-100%. For example, a gray value of 84 for the background is equivalent to approximately 33% gray level. The applet works for background levels from approximately 2 to 190 which corresponds to approximately .01% to 75% background gray level range. Thus, the applet includes the claimed range of 25-40%); and estimating a gamma for the display device based on user selection of one of the gray elements that appears to most closely blend with the dithered gray background (the applet estimates a gamma value (See the line "gamma=2.14" directly above the sliders. The values displayed by the applet for the gamma is based upon what value the user selects for the gray element (center square) that most closely matches the background gray level.). As to the limitation of "dithered" gray background level, while the

Art Unit: 2672

reference does not explicitly state that the background gray level is “dithered”, it is the standard use a dithered background. See, for example, the Berger article, page 2, section titled “What is the gamma of my display system?”. Herein, the article discusses the use of dither gray images in the setting of gamma for a display (which is the same process as in the Brettel applet). Further, the Berger article shows using gray values of 25%, 50%, and 75%. To one of ordinary skill in the art, it would have been obvious to use dither gray values as the background because of the conventionality of doing so (as shown by Berger) and because the two different gray areas (background and center square) need to be generated in different ways for the process to work.

17. Claim 16.

The step of “The system of claim 15, wherein the color image server stores the information to the client in a web cookie, the client transmits the web cookie from the client to the server, and the color image server modifies the color image via the server based on the contents of the web cookie”, is obvious because, Adobe on page 2-9 illustrates, teaches Windows NT, 95, 98 and Mac OS which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated gamma to a remote server on the network; The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network.

18. Claim 17.

As to claim 17, Brettel discloses a process for calibrating/estimating the gamma for a monitor, comprising: generating gray elements (i.e., the center square of gray) and a gray background on a display device, the gray background representing a gray level of approximately 25-40% (See the

Art Unit: 2672

Figure of the Brettel applet. This applet allows for the adjusting of both the center square and the background. Further, the gray values of these items can be varied between 0-254, which, on a percentage scale is 0-100%. For example, a gray value of 84 for the background is equivalent to approximately 33% gray level. The applet works for background levels from approximately 2 to 190, which correspond, to approximately .01% to 75% background gray level range.

19. Claim 18.

As for claim 18, Brettel only shows gray values without mentioning a green channel as does Berger (though Berger does mention that gamma does effect the color components such as red and green on page 2 and discusses that red, green and blue are effected by gamma on page 3), they do not actually show the claimed limitation of "the gray elements include green elements representing a range of gray levels for the green channel, and the dithered background is a dithered green background". However, Adobe shows in the first 2 figures of step 6 (page 6) that this type of gamma correction can be made using either gray levels (first figure) or using the components (red, green, and blue; second figure).

20. With regard to claim 4, Berger on page 3, discloses that color can be measured in a device, and a colorimeter is a device that evaluates and identifies colors in terms of a standard set of synthesized colors. To one of ordinary skill in the art it would have been obvious to use the teachings of Adobe in the combination of Brettel and Berger since all three of the references are directed to the same process of setting a gamma level using an operator input and because the ability of setting the gamma using the component (RGB) colors allows for a more accurate and distinct gamma correction since the gamma can be adjusted individually for each component rather than a single global gamma adjustment.



Art Unit: 2672

21. Claims 19-21.

Adobe on page 5, illustrates the gray elements are green elements representing a range of gray levels for the green channel, and the dithered gray background is a dithered green background, the method further comprising: selecting one of the selected green element and a plurality of red-blue shifted elements displayed by the display device that appears to most closely blend with the second dithered green background displayed by the display device; and estimating the gray balance of the display device based on the selected one of the selected green element or selected red-blue shifted element.

22. Claim 22.

Brettel on page 1, discloses for estimating the gamma includes: selecting one of a first plurality of gray elements displayed by the display device that appears to most closely blend with the dithered gray background; estimating a coarse gamma for the display device based on the selected one of the first plurality of gray elements; selecting one of a second plurality of gray elements displayed by the display device that appears to most closely blend with the dithered gray background, wherein the second plurality of gray elements includes the selected one of the first plurality of gray elements; and estimating a fine gamma for the display device based on the selected one of the second plurality of gray elements, wherein the estimated fine gamma is the estimated gamma.

23. Claim 23.

Berger on page 2, illustrates the first plurality of gray elements represent greater gradations in gray intensity that the second plurality of gray elements.

24. Claim 24.

Art Unit: 2672

Adobe on page 5, illustrates the gray elements are green elements representing a range of gray levels for the green channel, and the dithered gray background is a dithered green background, the method further comprising: selecting one of the selected green element and a plurality of red-blue shifted elements displayed by the display device that appears to most closely blend with the second dithered green background displayed by the display device; and estimating the gray balance of the display device based on the selected one of the selected green element or selected red-blue shifted element.

25. Claim 27.

With regard to claim 27, while Brettel only shows gray values without mentioning a green channel as does Berger (though Berger does mention that gamma does effect the color components such as red and green on page 2 and discusses that red, green and blue are effected by gamma on page 3), they do not actually show the claimed limitation of “the gray elements include green elements representing a range of gray levels for the green channel, and the dithered background is a dithered green background”. However, Adobe shows in the first 2 figures of step 6 (page 6) that this type of gamma correction can be made using either gray levels (first figure) or using the components (red, green, and blue; second figure).

26. Claim 28.

With regard to claim 4, Berger on page 3, discloses that color can be measured in a device, and a colorimeter is a device that evaluates and identifies colors in terms of a standard set of synthesized colors. To one of ordinary skill in the art it would have been obvious to use the teachings of Adobe in the combination of Brettel and Berger since all three of the references are directed to the same process of setting a gamma level using an operator input and because the

Art Unit: 2672

ability of setting the gamma using the component (RGB) colors allows for a more accurate and distinct gamma correction since the gamma can be adjusted individually for each component rather than a single global gamma adjustment.

27. Claim 30.

Adobe on pages 2-9, teaches Windows NT, 95, 98 and Mac OS which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated gamma to a remote server on the network; The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network

28. Claims 33-35.

Adobe on page 5, illustrates the gray elements are green elements representing a range of gray levels for the green channel, and the dithered gray background is a dithered green background, the method further comprising: selecting one of the selected green element and a plurality of red-blue shifted elements displayed by the display device that appears to most closely blend with the second dithered green background displayed by the display device; and estimating the gray balance of the display device based on the selected one of the selected green element or selected red-blue shifted element.

29. Claim 37

Adobe on pages 2-9, teaches Windows NT, 95, 98 and Mac OS which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated

Art Unit: 2672

gamma to a remote server on the network; The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network.

30. Claims 39-40.

Adobe on pages 2-9, teaches Windows NT, 95, 98 and Mac OS which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated gamma to a remote server on the network; The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network.

***Conclusion***

Art Unit: 2672


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A Amini whose telephone number is 703-605-4248. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 703-305-4713. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

Javid A Amini  
Examiner  
Art Unit 2672

Javid Amini

  
JEFFERY BRIEN  
PRIMARY EXAMINER